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MICHAEL S. GZYBOWSKI
BUTZEL LONG
350 SOUTH MAIN STREET
SUITE 300
ANN ARBOR, MI 48104

EXAMINER	
VALENTI, ANDREA M	

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Please find below and/or attached an Office communication concerning this application or proceeding.

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 22

Application Number: 09/837,020
Filing Date: April 18, 2001
Appellant(s): KOHNO ET AL.

Michael Gzybowski
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 01 December 2003.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief. Applicant has assigned this application to Agritecno Yazaki Co., Ltd. in an

assignment which was executed by the inventors on April 6, 2001, and filed in the United States Patent and Trademark Office on April 18, 2001, and recorded on April 18, 2001 at Reel No. 011723 and Frame No. 0926.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Applicant identified there are no known appeals or interferences that would directly affect or have a bearing on the pending appeal.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1-6 and 13 do stand or fall together and claim 7-12 stand or fall together separately from claims 1-6 and 13 and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,701,700	Kohno et al	12-1997
5,525,131	Asano	06-1996

Skarpaas, O. "Population Viability Anaylsis for the Oyster Plant (Mertensia maritime) in the Oslofjord Region ", Division of Botany and Plant Physiology, Department of Biology, University of Oslo, abstract, 1998 [http://folk.uio.no/oskarpaa/strandplanter/olav.html]

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-13 rejected under 35 U.S.C. 103(a). This rejection is set forth in prior Office Action, Paper No.18.

(11) Response to Argument

Examiner cited prior art reference Kohno et al to teach that it is old and notoriously well-known to perform the method steps of encapsulate a seed in an aqueous gel coat, then refrigerating the seed and subsequently sowing the seed. Kohno does not set out to explicitly solve the problem of increasing seed germination as a result of refrigerated storage and examiner has not relied on Kohno for this teaching. Examiner has relied on the teachings of Skarpaas to illustrate that the length of seed exposure to cold temperatures is notoriously known to increase germination. Kohno sets out to store the seeds in a manner that does not adversely affect the yield and handling and therefore inherently is

concerned with germination since germination has a direct relationship to yield. Although Kohno performed comparative tests between seeds stored and non-stored seeds having equal results, Skarpaas teaches that **prolonged** exposure to cold temperatures not merely provides the standard yield but increases the yield by enhancing germination. Therefore, one of ordinary skill in the art would be motivated to modify the teachings of Kohno with the teachings of Skarpaas for the effects of the enhanced germination.

The desired length of cold treatment storage can be derived through routine laboratory tests and experimentation for each seed variety. Kohno teaches that the storage temperature in the range of 0-5 degrees C is ideal for obtaining the best results. Even applicant claims a temperature below 15 degrees C. Kohno merely teaches that if temperatures go below 0 degrees C there could be adverse effects (Kohno Col. 3 line 26-36).

Examiner maintains that the "nutlet" of Skarpaas is in fact a seed. Applicant even indicated in the definition provided in the appeal brief that a nutlet is a seed. However, it is irrelevant the specific plant that Skarpaas is discussing. The importance of Skarpaas is merely to provide written documentation that it is an excepted wisdom in the field of plant husbandry that temperature effects seed germination. Specifically, Skarpaas states: '*A cold period is necessary to break seed dormancy, and prolonged cold treatment and mechanical wear of the pericarp enhances germination*'. Examiner presented in the Final Office Action

(paper no. 18) several other examples of teachings of the generally knowledge in the field that temperature effects germination.

Examiner would like to reiterate the arguments presented in Office Action Paper No. 18 concerning Kohno and Skarpaas. Examiner maintains that a prima facie case of obviousness was established and that the teachings of the cited references are combinable.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The teachings presented by Kohno are applicable to many different seeds. The abstract, the specification, and the claims of Kohno all refer to seeds in a general sense. The radish seed is merely just one example of a seed that could receive the aqueous gel-coat. The teachings of Skarpass were included to illustrate accepted wisdom in the field that it is old and notoriously well-known in the art of plant husbandry that temperature has a direct effect on germination.

Skarpass presents general knowledge in the field of seeds. The seed of Skarpass and the seeds of Kohno are merely alternate equivalent seeds. Although the seeds are alternate equivalents Skarpass was not a cited reference with regard to seed types but merely to illustrate the effect of temperature on seeds in general.

Skarpass teaches in the last paragraph of the abstract that seeds tend to germinate in warmer temperatures and it is a common characteristic of seeds not to germinate when subjected to cold temperatures. Skarpass also teaches that cold temperatures break seed dormancy to increase the probability of success.

An objective of Kohno is to prevent the reduction in yield and handling (Kohno Col. 1 line 55). Thus storage seed dormancy and germination are inherent concerns of Kohno thus providing the motivation and suggestion for the combination.

Examiner would like to bring applicant's attention to additional cited references that teach it is notoriously old and well-known in the art that cold breaks seed dormancy:

U.S. Patent No. 6,331,504 B1 teaches that germination is temperature and seed specific (Col. 1 lines 17-55); Abstract [http://www.oikos.ekol.lu.se/Oikos.95.3.abstracts/11173skarpaas.htm] by Skarpaas, third sentence prolonged cold treatment enhanced germination;

Effect of Scarification, GA and chilling on the germination of goldenrain-tree (Koelreuteria paniculata Laxm.) seeds, Rehman, Kyungpook National University, South Africa, 16 December 1999, 6 pages, abstract third sentence;

The Angelgrove Tree Seed Company, Basic Guidelines & Tips for Germinating Seeds, 9 pages [http://trees-seeds.com/seed.html] page 2 first paragraph.

With regard to the teachings of Asano, the examiner disagrees with applicant's argument that the pelletized seed would dissolve during preservation. Kohno teaches that the encapsulated seed is stored in a solution of metal ions (Kohno Col. 2 line 19-39 and abstract). The metal ion, also taught by Asano (Asano Col. 1 line 35-45), is a water proofing compound that would prevent the pelletized seed from dissolving prematurely in the preservation solution. One of ordinary skill in the art would be motivated to modify the teachings of Kohno with the teachings of Asano for the mechanized and economical distribution of the seeds in the field as taught by Asano (Asano Col. 1 line 14-18). Applicant has merely claimed that the seed is palletized and does not claim the particulars of the palletized seed. Therefore, examiner maintains that one of ordinary skill in the art would have the motivation to combine the teachings of Asano and Kohno and applicant has not patentably distinguished over the teachings of the prior art.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Andrea M. Valenti
Examiner
Art Unit 3643

AMV
March 3, 2004

Peter M. Poon
Supervisory Patent Examiner
Technology Center 3600

Conferees
Jeff Gellner
Peter Poon

BAKER & DANIELS
111 E. WAYNE STREET
SUITE 800
FORT WAYNE, IN 46802